WHAT IS CLAIMED IS:

1. A method comprising:

receiving content comprising a set of attributes having L through N levels of access, where L<N, and content at a given level of access being decryptable by a corresponding key;

receiving a base key corresponding to an M of N level of access, where L<=M<=N; and

deriving lower level keys based on the base key, the lower level keys being used to access content having an M level of access or lower.

2. The method of claim 1, additionally comprising receiving a D-dimensional matrix for each attribute in the set of attributes, wherein D corresponds to a number of attributes of the content, and wherein the matrix comprises matrix values for determining how to generate a key corresponding to a given section of the content, and said deriving lower level keys based on the base key comprises, for a given lower level key, using a function based on a matrix value corresponding to the lower level key and a one-way hash function of an adjacent higher level key.

3. The method of claim 1, wherein said deriving lower level keys based on the base key comprises, for a given lower level key, using a modular exponentiation of a higher level key.

4. A method comprising:

receiving a request for content at an M level of access, the content comprising a set of attributes having L through N levels of access, where L<N, and each level of access being represented by a grid point on a grid, and corresponding content being decryptable by a key corresponding to the level of access;

transmitting a base key corresponding to the M level of access; and

42390P11149.030501

transmitting a D-dimensional matrix for each attribute in the set of attributes, where D corresponds to a number of attributes of the content, and where the matrix comprises matrix values for determining how to generate a lower level key for decrypting content represented by a given grid point on the grid.

5. The method of claim 4, wherein a given lower level key in a 2 dimensional matrix, where X comprises a first matrix, and Y comprises a second matrix, is generated by at least one of:

the equation $K_{i,j} = X_{i,j} \wedge H(K_{i+1,j})$; and

the equation $K_{i,j} = Y_{i,j} \wedge H(K_{i,j+1})$,

where $X_{i,j}$ and $Y_{i,j}$ each comprises a matrix value corresponding to content attributes at a level of access represented by a grid point (i, j), and $H(K_{i+1,j})$ and $H(K_{i,j+1})$ each comprise a one-way hash value of a higher level key.

6. The method of claim 4, wherein a given lower level key in a 1 dimensional matrix represented by X is generated by the equation $K_i = H(K_{i+1})$.

7. A method comprising:

creating a hierarchy of keys, where each key is used to encrypt content having a set of attributes, and having one or more levels of access, and each key corresponds to a level of access; and

applying each of the keys to the content to create a plurality of sections of encrypted content, each section being a portion of the content, and each successive section of the content improving the set of attributes of the content.

8. The method of claim 7, additionally comprising creating a D-dimensional matrix for each attribute in the set of attributes, wherein D corresponds to a number of attributes of the content, and wherein the matrix comprises

matrix values for determining how to generate a key corresponding to a given section of the content.

9. The method of claim 7, wherein the hierarchy of keys are related by a cryptographic strength one-way function.

10. The method of claim 7, wherein an attribute comprises resolution.

11. A machine-readable medium having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a processor, cause the processor to perform the following:

receive content comprising a set of attributes having L through N levels of access, where L<N, and content at a given level of access being decryptable by a corresponding key;

receive a base key corresponding to an M of N level of access, where L<=M<=N; and

derive lower level keys based on the base key, the lower level keys being used to access content having an M level of access of lower.

12. The method of claim 11, additionally comprising instructions that cause the processor to receive a D-dimensional matrix for each attribute in the set of attributes, wherein D corresponds to a number of attributes of the content, and wherein the matrix comprises matrix values for determining how to generate a key corresponding to a given section of the content, and the instructions cause the processor to derive lower level keys based on the base key comprises, for a given lower level key, using a function based on a matrix value corresponding to the lower level key and a one-way function of an adjacent higher level key.

13. The method of claim 11, wherein the instructions cause the processor to derive lower level keys based on the base key comprises, for a given lower level key, by using a modular exponentiation of a higher level key.

14. An apparatus comprising:

at least one processor; and

a machine-readable medium having instructions encoded thereon, which when executed by the processor, are capable of directing the processor to:

receive content comprising a set of attributes having L through N levels of access, where L<N, and content at a given level of access being decryptable by a corresponding key;

receive a base key corresponding to an M of N level of access, where L<=M<=N; and

derive lower level keys based on the base key, the lower level keys being used to access content having an M level of access of lower.

15. The method of claim 14, additionally comprising instructions that cause the processor to receive a D-dimensional matrix for each attribute in the set of attributes, wherein D corresponds to a number of attributes of the content, and wherein the matrix comprises matrix values for determining how to generate a key corresponding to a given section of the content, and the instructions cause the processor to derive lower level keys based on the base key comprises, for a given lower level key, using a function based on a matrix value corresponding to the lower level key and a one-way hash function of an adjacent higher level key.

16. The method of claim 14, wherein the instructions cause the processor to derive lower level keys based on the base key comprises, for a given lower level key, by using a modular exponentiation of a higher level key.

17. An apparatus comprising:

means to receive content comprising a set of attributes having L through N

levels of access, where L<N, and content at a given level of access being decryptable by a corresponding key;

means to receive a base key corresponding to an M of N level of access, where L<=M<=N; and

means to derive lower level keys based on the base key, the lower level keys being used to access content having an M level of access of lower.

18. The method of claim 17, additionally comprising means to receive a D-dimensional matrix for each attribute in the set of attributes, wherein D corresponds to a number of attributes of the content, and wherein the matrix comprises matrix values for determining how to generate a key corresponding to a given section of the content, and the means to derive lower level keys based on the base key comprises, for a given lower level key, using a function based on a matrix value corresponding to the lower level key and a one-way hash function of an adjacent higher level key.

19. The method of claim 17, wherein the means to derive lower level keys based on the base key comprises, for a given lower level key, using a modular exponentiation of a higher level key.

20. A method comprising:

receiving encrypted content comprising a set of attributes having L through N levels of access, where L<N, and each level being accessible by a corresponding key;

receiving a base key corresponding to an M of N level of access, where L<=M<=N;

deriving lower level keys based on the base key, the lower level keys being used to access content having an M level of access or lower; and

using a given lower level key to decrypt the content at a corresponding level.

21. The method of claim 20, additionally comprising receiving a D-dimensional matrix for each attribute in the set of attributes, wherein D corresponds to a number of attributes of the content, and wherein the matrix comprises matrix values for determining how to generate a key corresponding to a given section of the content, and said deriving lower level keys based on the base key comprises, for a given lower level key, using a function based on a matrix value corresponding to the lower level key and a one-way function of an adjacent higher level key.

22. The method of claim 20, wherein said deriving lower level keys based on the base key comprises, for a given lower level key, using a modular exponentiation of a higher level key.